Table 2.6. TSI for estimating estuarine water quality

TSI	CHLA (µg/l)[1]	Secchi depth (m)	TP (mg/l)[2]	TN (mg/l)[3]
0	0.3	7.4	0.003	0.06
10	0.6	5.3	0.005	0.10
20	1.3	3.8	0.009	0.16
30	2.5	2.7	0.01	0.27
40	5.0	2.0	0.02	0.45
50	10.0	1.4	0.04	0.70
60	20.0	1.0	0.07	1.2
70	40.0	0.7	0.12	2.0
80	80.0	0.5	0.20	3.4
90	160.0	0.4	0.34	5.6
100	320.0	0.3	0.58	9.3

[1]See Fig. 2.10.
[2]See Fig. 2.11.
[3]See Fig. 2.12.

Ratings on a scale from 0 to 100 are matched with results of water analysis of chlorophyll a (CHLA), Secchi disk depth (SD), total phosphorus (TP), and total nitrogen (TN) to determine overall quality. Zero - 49 is good, 50 -59 is fair, and 60 - 100 is poor. An overall TSI rating is calculated by averaging the chlorophyll, Secchi, and nutrient (TP and/or TN*) TSIs.

*Water bodies may be classified as phosphorus or nitrogen limited or balanced depending on the ratio of these two nutrients in a system. If the ratio of TN/TP > 30, then the nutrient TSI = TP TSI; if the ratio of TN/TP < 30 then the nutrient TSI = TN TSI; if the ratio of TN/TP > 10 and < 30, then the nutrient TSI = the average of the TN and TP TSIs.

Source: Hand et al. 1994.